

MOVABLE POSITIONING HOLDER OF STORAGE RACK

BACKGROUND OF THE INVENTION

5 I. Field of the Invention

This invention relates generally to a holder of storage rack and, more specifically, to a movable positioning holder of storage rack that supports the shelf boards, users can adjust the position of the holder on the storage rack to change the position of shelf boards for 10 new arrangement of storage room rapidly and easily.

II. Description of the Prior Art

Heretofore, it is known that the structure of a storage rack consists of a frame with several rods and several shelf boards in between for storage room. The main purpose of the frame is to form 15 the structure of the storage rack, usually the structure is definite and cannot be modified, if users want to change the storage room, they have to change the location of the shelf boards.

The installation of the shelf boards of the prior art, some of them are to have both ends of the shelf boards fixed on the rods with 20 screws directly, some are to have several supporting parts fixed on the rod with screws and have the supporting parts hold the shelf boards. These two installation and alteration methods need tools to take off and reinstall screws repeatedly and consume a lot of time and strength, the installation and alteration is very tedious. The screws of

the assembled rack might have rust or out of shape and will be very difficult to take off, they might not be able to reuse after taking off.

SUMMARY OF THE INVENTION

5 It is therefore a primary object of the invention to provide a movable positioning holder of storage rack to solve time, strength consuming and damages of the disassembly and alteration of the known storage racks.

10 It is still an object of this invention to provide a movable positioning holder of storage rack offers more stability of the storage rack.

15 It is still another object of this invention to provide a movable positioning holder of storage rack in which not only the sucking disks to stable the shelf boards but also applies screws and nuts to fix the bottom board for more stability, the holders can combine with cabinet to make the storage rack for more storage room variety.

In order to achieve the objective set forth, a movable positioning holder of storage rack in accordance with the present invention comprises of following:

20 Several holders on the storage rack, the holder further consists of a flank board, a hook joint on top bent backward, a vertical supporting board on the front center of the holder, a sucking disk fixed onto the supporting board or a screw and a nut pass through the supporting board.

Two frame stems are on the hanging location of the holder, a horizontal rod links between the two frame stems. The hook joint of the holder hangs on the horizontal rod, two flank boards stick on the surface of the two frame stems. The corner of the shelf board is 5 placed on top of the sucking disk or fixed with screws and nuts on the supporting board.

BRIEF DESCRIPTION OF THE DRAWINGS

The accomplishment of the above-mentioned object of the 10 present invention will become apparent from the following description and its accompanying drawings which disclose illustrative an embodiment of the present invention, and are as follows:

FIG 1 is an assembly view of the first application of the present invention;

15 FIG 2 is a perspective view of the first application of the present invention;

FIG 3 is an application view of the present invention;

FIG 4 is a cross-sectional view of the first application of the present invention;

20 FIG 5 is a flowchart for program setting (I) in accordance with the present invention;

FIG 6 is an application view of the first application of the storage rack in accordance with the present invention;

FIG 7 is a perspective view of the second application of the

present invention;

FIG 8 is an application view of the second application of the storage rack in accordance with the present invention.

DESCRIPTION OF THE PREFERRED EMBODIMENT

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The present invention is to have several holder 10 on the storage rack 50, these holder 10 support a shelf board 51.

Referring to FIG 1 to FIG 4, the holder 10 is made of metal and is in inverted “T” shape, the top portion is bent backward and 10 forms a hook joint 11, the bottom portion expands on both sides and forms a flank board 12 in wrapping semicircle shape on each side; a vertical supporting board 13 is on the front center of the holder 10, a hole 131 is on top of the supporting board 13, the hole 131 can hold a sucking disk 20.

15 The sucking disk 20 is made of soft material with a neck 21 on the center bottom, the bottom of the neck has a stopper 22, the stopper 22 can be deformed and passed through the hole 131 of the supporting board 13 to have the neck 21 in the hole 131, the stopper 22 props down to the bottom of the hole 13, the sucking disk 20 is 20 fixed on the position.

As shown in FIG 3 and FIG 5, the major characteristic of the storage rack 50 is that two frame stem 52,53 must on the hanging location of the holder 10, at least one horizontal rod 54 links between the two frame stem 52,53. The hook joint 11 of the holder 10 hangs

on the horizontal rod 54, two flank board 12 stick on the surface of the two frame stem 52,53, the corner of the shelf board 51 is placed on top of the sucking disk 20, the sucking strength of the sucking disk 20 stables the shelf board 51 further more.

5 The holder 10 takes the hook joint as a pivot to have the supporting board 13 carry the weight of the shelf board 51 and all the articles on top, the flank board 12 generates sticking force toward the frame stem 52,53 to make the holder 10 carry the shelf board 51 without shaking and vibration.

10 Users can change the position of the holder 10 rapidly without tools or screws, users can pull the edge of the sucking disk 20 sticks to the shelf board 50 with finger to release the sucking strength then remove the shelf board 50, the holder 10 are taken out one by one for other horizontal rod 54 locations, finally the shelf
15 board 50 is placed on top of the holder 10, the adjustment is very rapid and easy.

Referring to FIG 6, FIG 7 and FIG 8, another application of the present invention, a screw hole 62 is on the shelf board 61 for a screw 63 to pass through and reach to the hole 131 of the supporting
20 board 13, a nut 64 is on the bottom to fix the screw 63. This application is to have the holder 10 to support a cabinet 60, the bottom shelf 61 of the cabinet 60 is fixed on the holder 10 by a screw 63 and a nut 64, the cabinet can be fixed inside the storage rack 50,

the storage space of the storage rack 50 can have more variety.

While a preferred embodiment of the invention has been shown and described in detail, it will be readily understood and appreciated that numerous omissions, changes and additions may be
5 made without departing from the spirit and scope of the invention.